



CONTROL OF RADIATION - HAZARD REGULATIONS

Radon

Chapter 64E-5 Parts X and XII

Florida Administrative Code

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This has been provided to you by the following Bureau.

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This is not a complete copy of Chapter 64E-5. Contact the appropriate Bureau of Radiation Control Section listed below for a copy of those parts not included in this version.

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This revision has been proofed with an official copy from the Department of State. A discrepancy was found between the form references in the rule and the actual form numbers. The currently published version of 64E-5 refers to the forms used by this program as "DOH Form #####". The actual form numbers are "DH Form #####". Please note the discrepancy and that any reference to "DOH Form #####" should be read as "DH Form #####". The Department will correct this during our next rule revision.

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PART X
ENVIRONMENTAL RADIATION STANDARDS

ANNOTATIONS

Validity

Challenge to the validity of Department of Health and Rehabilitative Services rules regulating levels of public exposure to naturally occurring radiation denied. While one of the two plaintiff environmental organizations was found "substantially affected" by the rules and thus with legal standing to challenge their validity, the rules themselves were found to be part of a valid regulatory scheme. 1.) The agency adopting the rule was within its permissible statutory authority. While other interpretations of the statute were possible, the agency's construction when it promulgated the rules needed only to be within the range of possible interpretations. 2.) The requirements of the rules were appropriate to the ends specified in the legislative authority, F.S. A. Sec. 404.051(4) and 404.056, to protect public health by the application of "any environmental standards for land" which emits radiation. 3.) The rules requirements were reasonably related to the purpose of the enabling legislation. The rules reflected a compromise between health concerns, the economies of enforcement and the economic inconvenience of persons regulated. While stricter regulation was possible, failure to do so was not arbitrary or capricious. *Manasota-88, Inc., and Concerned Citizens of Citrus County, Inc. v. Department of Health and Rehabilitative Services*, (DOAH 85-2813R), 8 FALR 60 (1985), *aff'd*, App., (1st) 500 So. 2d 705 (1987).

PART XA
RADIATION STANDARDS FOR BUILDINGS

64E-5.1001 Standards.

(1) Radiation exposure to the public from naturally occurring radioactive materials shall be maintained as low as reasonably achievable. For the purposes of this part, the

normal background level of gamma radiation in buildings is 6 microroentgens (1.55 nC/kg) per hour and the normal background radon decay product concentration in buildings is 0.004 Working Level (WL).

(2) The mean gamma exposure rate in a building shall not exceed 20 microroentgens (5.16 nC/kg) per hour, including background, and the annual average radon decay product concentration shall not exceed 0.02 WL, including background.

Specific Authority 404.051, 404.056 FS. Law Implemented 404.022(2), 404.051(4), 404.056 FS. History–New 2-16-86, Amended 1-3-89, Formerly 10D-91.1104.

PART XB ENVIRONMENTAL MONITORING

64E-5.1002 Monitoring Requirements.

The department will perform the following tests both prior to phosphate mining and subsequent to reclamation:

- (1) Gamma radiation exposure measurements.
- (2) Soil characterization measurements consisting of
 - (a) Radon emanation determinations.
 - (b) Soil radium determinations.
- (3) Air monitoring determinations.
- (4) Surface and ground water monitoring of such water that is potentially affected by mining activities unless existing test data is available.

Specific Authority 404.051, 404.056 FS. Law Implemented 404.022(2), 404.051(4), 404.056 FS. History–New 11-13-85, Amended 9-26-91, 5-15-96, Formerly 10D-91.1111.

64E-5.1003 Monitoring Fees.

(1) The costs incurred by the department and the subsequent fees associated with the monitoring program shall be annually prorated on the basis of the total number of measurements to be made on land proposed to be mined and land proposed to be reclaimed, excluding bodies of water.

(2) The annual fees paid by the mining companies shall be calculated by the following method:

(a) Gamma radiation exposure measurements will be made at the rate of one per acre. An annual fee of \$11.63 per measurement shall be assessed the mining company by the department.

(b) Soil characterization measurements will be made at the rate of one per 20 acres. An annual fee of \$496.00 per each 20 acres measured shall be assessed the mining

company by the department.

(c) Air monitoring measurements will be assessed at the rate of \$255.75 per measurement. The department shall prorate the cost of air monitoring measurements among the mining companies based on their share of the total acreage to be mined and reclaimed each year. The department will conduct no more than 272 air monitoring measurements per year for all mining companies for which a fee will be assessed.

(d) Surface and ground water monitoring measurements will be assessed at the rate of \$300.00 per measurement. The department shall prorate the cost of water monitoring among the mining companies based on their share of the total acreage to be mined and reclaimed each year. The department will analyze no more than 160 water samples per year for all mining companies for which a fee will be assessed.

(3) The department shall bill each affected company by March for activities which are planned for the following July through December time period. The department shall bill each affected company by September for activities which are planned for the following January through June time period. Each mining company shall remit the fee to the department within 60 days of the billing date.

(4) Overpayments or underpayments from an affected company will be reconciled by the department on an annual basis.

Specific Authority 404.022, 404.051, 404.056, 404.131 FS. Law Implemented 404.022(2), 404.051(4), 404.131(5) FS. History–New 11-13-85, Amended 9-26-91, Formerly 10D-91.1112, Amended 2-28-08.

64E-5.1201 Radon Requirements and Enforcement.

(1) This part establishes rules, requirements and procedures for the certification of radon measurement and mitigation specialists, technicians and businesses, and the protocols for mandatory measurements.

(2) The General Statement of Policy and Procedures for Radon Enforcement Actions January 1993, which is available from the department and which is incorporated herein by reference, will be used to determine enforcement actions.

Specific Authority 404.042, 404.051, 404.056 FS. Law Implemented 404.051(1), (3), (7), 404.056(5) FS. History–New 1-3-89, Amended 12-9-96, Formerly 10D-91.1301.

64E-5.1202 Definitions.

The following definitions shall be applicable to this part:

(1) “Business day” means any day of the year, exclusive of Saturdays, Sundays, and State of Florida holidays.

(2) “Diagnostic tests” means tests performed or procedures used to determine appropriate mitigation methods for a building.

(3) “Certified person” or “certified individual” means a certified radon measurement specialist, certified radon measurement business, certified radon measurement technician, certified radon mitigation business, certified radon mitigation specialist or certified radon mitigation technician as defined by this part.

(4) “Certified radon measurement business” means a commercial business which provides on-site measurement services for radon or radon progeny and which meets the requirements for certification provided by this part. For the purpose of this section, an analytical service provider which does not perform on-site measurement services directly to the public is not considered a radon measurement business.

(5) “Certified radon measurement specialist” means an individual who performs on-site radon or radon progeny measurements; provides professional advice on such radon or radon progeny measurements, health risks, radon-related exposure, radon entry routes, and other radon-related activities; and meets the requirements for certification provided by this part.

(6) “Certified radon measurement technician” means an individual who performs on-site radon or radon progeny measurement activities, provides information on measurement results, and meets the requirements for certification provided by this part. Such an individual can perform these activities only under the supervision of a certified radon measurement specialist.

(7) “Certified radon mitigation business” means a commercial business which designs or installs systems in existing buildings to mitigate radon or radon progeny contamination and which meets the requirements for certification provided by this part.

(8) “Certified radon mitigation specialist” means an individual who performs or evaluates diagnostic tests to determine appropriate radon or radon progeny mitigation strategies for a building, designs and installs mitigation systems, and meets the requirements for certification provided by this part.

(9) “Certified radon mitigation technician” means an individual who installs or supervises the installation of radon or radon progeny mitigation techniques on existing buildings and meets the requirements for certification provided by this part. Such an individual can perform these activities only under the supervision of a certified radon mitigation specialist.

(10) “Mitigate” means to apply materials or install systems and materials to reduce radon or radon progeny

concentrations in the indoor atmosphere or to prevent entry of radon or radon progeny into the indoor atmosphere.

(11) “Picocurie per liter (pCi/l)” means 2.22 disintegrations per minute of radioactive material per liter. One picocurie is equivalent to 10-12 Curies.

(12) “Radon” means the radioactive noble gas radon 222.

(13) “Radon progeny” means the short-lived radionuclides formed as a result of the decay of radon 222, including polonium 218, bismuth 214, lead 214, and polonium 214.

(14) “Working level (WL)” means the concentration of short-lived radon progeny that will result in 130,000 million electron volts of potential alpha particle energy per liter of air. Working level is a measure of radon progeny concentration in air.

Specific Authority 404.042, 404.051, 404.056 FS. Law Implemented 404.051(1), (3), (4), 404.056(1), (5) FS. History—New 1-3-89, Amended 5-21-90, 10-24-90, 1-18-94, 12-9-96, Formerly 10D-91.1303.

64E-5.1203 General Provisions.

(1) Beginning January 1, 1989, no person may test for or mitigate the presence of radon in Florida for a fee or other remuneration unless such person has been certified as provided by this part. These regulations in no way exempt any person from other state and local occupational licensure requirements.

(2) The certification requirements of this part shall not apply to a commercial business that subcontracts radon measurements to a certified radon business when the complete radon report from the certified radon business is provided to the client and interpretations of the results are provided by the certified business.

(3) No certification shall be approved unless the applicant demonstrates to the department that the following conditions are met:

(a) The applicant has not been found to be in violation of Chapter 404, Florida Statutes, or this part, and has not been decertified;

(b) The applicant has filed an accurate and complete application with the application fee describing compliance with the relevant certification requirements.

(4) Requirements for continued certification shall include the following conditions:

(a) The certified person shall conduct his activities as described in the approved certification and shall remain in compliance with Chapter 404, Florida Statutes, and this part.

(b) The certified person shall allow authorized representatives of the department to have access during

normal business hours to his facilities, offices and files for inspection and examination of radon-related records, measurement procedures and mitigation system design and installations. The certified person shall also allow authorized representatives of the department to inspect the on site radon measurement or mitigation activities.

(c) The following changes shall be reported in writing to the department within 10 business days of the change: changes to the name or address of a certified individual or business; changes in the information provided with the original business application, including changes in certified personnel; changes in analytical service providers used; changes in USEPA proficiency status; and changes to the measurement or mitigation methods used. New measurement methods shall comply with the Quality Assurance Plan requirements specified in subsection 64E-5.1206(5), F.A.C.

(5) Prior to performing radon measurement or radon mitigation services, including sample collection, analysis, or interpretation of measurement results a certified individual shall own, be employed by, or be retained as a consultant to a certified radon measurement or certified radon mitigation business.

(6) A certification will be valid for 1 year following the date of issuance. If renewal is requested more than 90 days after an expired certification, a new application must be submitted for recertification. After 1 year, previously certified applicants must attend a department-approved training course. A duplicate certificate can be obtained by written request to the department and payment of a five dollar fee.

(7)(a) A request for annual certification renewal shall be submitted with a nonrefundable renewal fee. For renewal requests received prior to expiration of the certification, the fee schedule set forth in this part will apply. For renewal requests received after certification has expired, the fee schedule for application and certification will apply. A certification renewal shall be issued or denied according to the criteria set forth in this part.

(b) Annual certification renewal fee schedule:

1. Radon Measurement or Mitigation Business

Renewal request received between July 1, 2010 and June 30, 2011: \$350

Renewal request received between July 1, 2011 and June 30, 2012: \$425

Renewal request received on or after July 1, 2012: \$500

2. Radon Measurement or Mitigation Specialist

Renewal request received between July 1, 2010 and June 30, 2011: \$300

Renewal request received between July 1, 2011 and June

30, 2012: \$350

Renewal request received on or after July 1, 2012: \$400

3. Radon Measurement or Mitigation Technician

Renewal request received between July 1, 2010 and June 30, 2011: \$250

Renewal request received between July 1, 2011 and June 30, 2012: \$275

Renewal request received on or after July 1, 2012: \$300

(8) A certified individual in good standing who becomes an active duty member of the Armed Forces of the United States prior to the expiration of the renewal period shall remain in good standing while on active duty and for a period of 6 months after discharge from active duty. No radon measurement or mitigation activity for which certification is required shall be conducted after the expiration of the term of certification.

(9) A certified individual in good standing who is absent from the state because of their spouse's active duty with the Armed Forces of the United States prior to the expiration of the renewal period shall remain in good standing while their spouse is on active duty and for a period of 6 months after their spouse's discharge from active duty. No radon measurement or mitigation activity for which certification is required shall be conducted after the expiration of the term of certification.

(10) All applications should clearly label any information considered trade secrets and must segregate such information from other information as required by Section 119.165, Florida Statutes.

(11) The department will approve training courses for certification based upon evaluation of course materials and content. These courses shall meet the following requirements.

(a) The course subjects shall be applicable to Florida, shall enable the students to meet training objectives provided by the department and shall include at least the following:

1. Radon Measurement Specialist Training.

a. Two hours of instruction on radioactivity, radon, and radon's health effects.

b. One and one-half hours of instruction on Florida's radon legislation and administrative rules and federal radon legislation and proficiency programs.

c. Two and one-half hours of instruction on radon entry and behavior.

d. One hour of instruction on worker health and safety.

e. Seven hours of instruction on radon measurement devices, techniques and protocols.

f. One and one-quarter hours of instruction on building investigation and diagnostics and mitigation strategies and

techniques applicable to Florida.

g. One-half hour of instruction on radon-resistant building techniques for new construction applicable to Florida.

h. One hour of instruction on measurement and mitigation techniques for radon in domestic water.

2. Radon Measurement Technician Training.

a. One and one-quarter hours of instruction on radioactivity, radon, and radon's health effects.

b. One and one-half hours of instruction on Florida's radon legislation and administrative rules and federal radon legislation and proficiency programs.

c. One and three-quarters hours of instruction on radon entry and behavior.

d. One hour of instruction on worker health and safety.

e. Five hours of instruction on radon measurement devices, techniques and protocols, including 1 hour of experience deploying, retrieving and reporting results of various measurement devices.

f. One-half hour of instruction on mitigation strategies and techniques applicable to Florida.

g. One-half hour of instruction on radon-resistant building techniques for new construction applicable to Florida.

h. One-half hour of instruction on measurement and mitigation techniques for radon in domestic water.

3. Radon Mitigation Specialist Training.

a. Two hours of instruction on radioactivity, radon, and radon's health effects.

b. One and one-half hours of instruction on Florida's radon legislation and administrative rules and federal radon legislation and proficiency programs.

c. Two and one-half hours of instruction on radon entry and behavior.

d. One hour of instruction on worker health and safety.

e. Three-quarters hour of instruction on radon measurement devices, techniques and protocols.

f. One-half hour of instruction on radon-resistant building techniques for new construction applicable to Florida.

g. One hour of instruction on measurement and mitigation techniques for radon in domestic water.

h. Three and one-half hours of instruction on building investigation and diagnostics and mitigation strategies and techniques applicable to Florida.

i. Six and one-half hours of instruction on mitigation system theory, design and installation applicable to Florida.

4. Radon Mitigation Technician Training.

a. One and one-quarter hours of instruction on radioactivity, radon, and radon's health effects.

b. One and one-half hours of instruction on Florida's radon legislation and administrative rules and federal radon legislation and proficiency programs.

c. One and three-quarters hours of instruction on radon entry and behavior.

d. One hour of instruction on worker health and safety.

e. Three-quarters hour of instruction on radon measurement devices, techniques and protocols.

f. One-half hour of instruction on radon-resistant building techniques for new construction applicable to Florida.

g. Three-quarters hour of instruction on measurement and mitigation techniques for radon in domestic water.

h. Three hours of instruction on building investigation and diagnostics and mitigation strategies and techniques applicable to Florida.

i. Five hours of instruction on mitigation system theory and installation applicable to Florida.

(b) Participants shall be given an opportunity to evaluate in writing the learning experiences, instructors, instructional methods, facilities and resources used for the course. Results of these evaluations shall be available for inspection by the department for 3 years after completion of the course.

(c) The subject matter shall be kept current and represent accepted protocols and techniques.

(d) The course provider shall furnish each participant who has attended the entire course a written verification of completion which includes:

1. Date of course;
2. Signature and name of provider;
3. Course title; and
4. Name of participant.

(e) Course providers shall send to the department a roster of participants who have attended the entire course within 30 days after each course on DH Form 1812 Apr 90 available from the department and herein incorporated by reference. Providers shall maintain security of attendance records. Course providers shall maintain records of individual courses for 3 years after completion of the course for inspection by the department.

(f) A course provider seeking approval to conduct a radon certification training course shall make application on DH Form 1813 Apr 90, available from the department and herein incorporated by reference.

(g) The course provider also shall submit to the department a copy of the proposed curriculum, all training materials, and information concerning the proposed instructors.

(h) The course provider shall allow authorized representatives of the department to observe and evaluate

training sessions, instructors and course material without charge.

(i) Any proposed changes in course materials or instructors shall be reported in writing to the department at least 15 business days before implementation of the change.

(j) Approval of a course shall be valid for a period of 24 months. Approval shall be withdrawn if the department determines that the course approval requirements are not met.

Specific Authority 404.051, 404.056 FS. Law Implemented 404.051, 404.056, 404.071 FS. History—New 1-3-89, Amended 5-21-90, 10-24-90, 1-18-94, 12-9-96, Formerly 10D-91.1304, Amended 3-16-09.

64E-5.1204 Certification Requirements for Radon Measurement Specialists and Technicians.

(1) The following is required for certification as a radon measurement specialist and measurement technician:

(a) The individual shall submit an application on DH Form 1751 Jan. 93, which is herein incorporated by reference and which is available from the department. The application shall include the nonrefundable application and certification fee according to the fee schedule set forth in this part and documentation of the applicant's relevant education and experience, as specified on DH Form 1751 Jan. 93.

(b) Individuals who have never been certified must have attended within the last 2 years of the training examination date a course on radon measurement that has been approved by the department. The technician applicant also shall have received a score of 65 percent or greater on the measurement technician training examination to be administered by the department at least three times per year. The specialist applicant also shall have received a score of 75 percent or greater on the measurement specialist training examination to be administered by the department at least three times each year. If a specialist applicant receives a score of less than 75 percent but greater than or equal to 65 percent, he can be certified as a measurement technician by making a written request to the department for a change from specialist to technician. If an applicant wishes to be reexamined for specialist or technician certification, he must reapply by submitting a completed application with experience history and a \$200 nonrefundable application and certification fee. On approval of the new application, the applicant can take the next scheduled department exam. Applicants can review their exam results during normal working hours at the department's office in Tallahassee by requesting an appointment at least 5 business days prior to the review.

(c) Application and certification fee schedule:

1. Radon Measurement Specialist

Application received between July 1, 2010 and June 30,

2011: \$325

Application received between July 1, 2011 and June 30,

2012: \$375

Application received on or after July 1, 2012:

\$425

2. Radon Measurement Technician

Application received between July 1, 2010 and June 30,

2011: \$275

Application received between July 1, 2011 and June 30,

2012: \$300

Application received on or after July 1, 2012:

\$325

(2) In addition to the above, a measurement specialist applicant shall possess 4 years of relevant radiation or radiological safety professional or work experience. Relevant post-secondary education may be substituted on a year for year basis for 3 of the 4 years of relevant professional or work experience. Relevant post-secondary education includes curriculum in a natural science, engineering, radiation, radiological safety or health physics, mathematics or statistics. An academic year shall be 30 semester hours at a C- grade level or better, of which at least 10 hours shall be in the above subject areas, or 45 quarter hours at a C- grade level or better, of which at least 15 hours shall be in the above subject areas. For other relevant radiation education such as military or technical school training, 15 classroom hours of instruction shall be equivalent to 1 credit hour of college level course work. Full time training and advanced military courses will be evaluated by the department to determine their academic equivalent. Relevant professional or work experience includes radiation instrumentation, radiation physics, radiation protection, radiation biology, and radiation risk communication. Professional or work experience also shall include employment in such occupations as nuclear medicine technologist, radiation therapy technologist, radiographer, health physicist, military health physics specialist, nuclear navy engineering lab technician, health physics technician, hospital radiation safety officer, or occupations requiring equivalent experience.

Specific Authority 404.051, 404.056, 404.071 FS. Law Implemented 404.051, 404.056, 404.071 FS. History—New 1-3-89, Amended 5-21-90, 10-24-90, 1-18-94, 12-9-96, Formerly 10D-91.1305, Amended 3-16-09.

64E-5.1205 Certification Requirements for Radon Mitigation Specialists and Technicians.

(1) The following is required for certification as a radon mitigation specialist and technician:

(a) The individual shall submit an application on DH

Form 1751 Jan. 93, a nonrefundable application and certification fee according to the fee schedule set forth in this part, and documentation of the applicant's relevant education and experience, as specified on DH Form 1751 Jan. 93.

(b) Individuals who have never been certified must have attended within 2 years of the training examination date a course on radon diagnostics and mitigation that has been approved by the department. The technician applicant also shall have received a score of 60 percent or greater on the mitigation technician training examination to be administered by the department at least three times per year. The specialist applicant also shall have received a score of 70 percent or greater on the mitigation specialist training examination to be administered by the department at least three times each year. If a specialist applicant receives a score of less than 70 percent but greater than or equal to 60 percent, he can be certified as a mitigation technician by making a written request to the department for a change from specialist to technician. If an applicant wishes to be reexamined for specialist or technician certification, he must reapply by submitting a completed application with experience history and a nonrefundable \$200 application and certification fee. After approval of the new application, the applicant can take the next scheduled department exam. Applicants can review their exam results during normal working hours at the department's office in Tallahassee by requesting an appointment at least 5 business days prior to the review.

(c) Application and certification fee schedule:

1. Radon Mitigation Specialist

Application received between July 1, 2010 and June 30, 2011: \$325

Application received between July 1, 2011 and June 30, 2012: \$375

Application received on or after July 1, 2012: \$425

2. Radon Mitigation Technician

Application received on or before June 30, 2009: \$200

Application received between July 1, 2009 and June 30, 2010: \$250

Application received between July 1, 2010 and June 30, 2011: \$275

Application received between July 1, 2011 and June 30, 2012: \$300

Application received on or after July 1, 2012: \$325

(2) In addition to the above, a mitigation specialist applicant shall possess a valid residential, building or general contractor's license issued by the State of Florida, or possess 4 years of relevant professional or work experience. Relevant

post-secondary education may be substituted on a year for year basis for 3 of the 4 years of relevant professional or work experience. Relevant post-secondary education includes curriculum in architecture, engineering, building construction, or the physical sciences. Relevant professional or work experience includes the design or construction of buildings, or associated heating, ventilation, and air conditioning systems, or closely related activities.

Specific Authority 404.051, 404.056, 404.071 FS. Law Implemented 404.051, 404.056, 404.071 FS. History--New 1-3-89, Amended 5-21-90, 10-24-90, 1-18-94, 12-9-96, Formerly 10D-91.1306, Amended 3-16-09.

64E-5.1206 Certification Requirements for Radon Measurement Businesses.

The following qualifications are required for certification as a radon measurement business:

(1) Submission of an application for certification on DH Form 1749 Jan. 93, which is herein incorporated by reference and which is available from the department, and a nonrefundable application and certification fee from the following schedule:

Application received between July 1, 2010 and June 30, 2011: \$375

Application received between July 1, 2011 and June 30, 2012: \$450

Application received on or after July 1, 2012: \$525

(2) Identification of all radon and radon progeny measurement methods or related services to be offered, including the purpose of each measurement service, the type of measurement equipment and a summary of the procedure to be used in performing the service. All measurements reported to clients shall be performed with devices that meet measurement proficiency requirements of the USEPA. U.S. Environmental Protection Agency Indoor Radon and Radon Decay Product Measurement Device Protocols, Publication No. EPA 402-R-92-004 and Protocols for Radon and Radon Decay Product Measurements in Homes, Publication No. EPA 402-R-92-003, which are herein incorporated by reference and which are available from the department, shall be followed for all measurements reported to clients with the exception of nonresidential measurements performed as specified in subpart B of this rule.

(3) Identification of certified radon measurement specialists and certified radon measurement technicians who will perform measurements for the applicant. An applicant shall maintain on staff or retain as a consultant a certified radon measurement specialist. All radon or radon progeny

measurements will be performed only by certified radon measurement specialists or certified radon measurement technicians. This shall include the initial placement and final retrieval of all measurement devices. The certified radon measurement specialist shall monitor the applicant's measurement activities and shall review, approve, and sign monthly reports to the department, assess quality assurance and quality control measures, evaluate operating procedures, and ensure compliance with state and federal regulations. The certified radon measurement specialist shall be present when requested by the department during scheduled visits by the department and shall physically observe and evaluate each certified radon measurement technician in the performance of his measurement duties at least once each calendar quarter to insure adequate supervision. A record of this evaluation shall be signed by the specialist and maintained on file by the business. If the measurement reports submitted to meet the requirements of paragraph 64E-5.1206(12)(a) and subsection 64E-5.1208(3), F.A.C., show that no radon or radon progeny measurements were performed during an entire calendar quarter by any of the certified radon measurement technicians working for a certified radon measurement business, the visit, observation and evaluation by the specialist are not required for that quarter. The quarterly visit, observations and evaluations by the specialist must be resumed within the same calendar quarter in which measurement activities are resumed. The interval between visits, observations and evaluations by the specialist shall not exceed 1 year.

(4) Identification of the proficient analytical service providers which will process devices for all measurement methods used by the business. A radon measurement business must maintain proficiency as an analytical service provider with the USEPA with every measurement method for which it analyzes devices or obtains results directly from measurement instruments.

(5) Disclosure and adherence to a plan of quality assurance and quality control for each measurement method used by the applicant to assure the reliability and validity of radon and radon progeny measurements. This plan shall include provisions to monitor the accuracy and precision of measurements and can include the use of periodic calibrations of instruments, and blank, duplicate and spiked measurements.

(6) Disclosure of all sample reporting forms mailed to clients, including any guidance provided concerning the need for further measurement or mitigation.

(7) Disclosure of copies of current publications and advertisements of radon-related services made by the applicant.

(8) Development, disclosure and adherence to a health

and safety program to limit employees' exposure to radon progeny during the course of employment. Such a program shall include measures to keep each employee's exposure, which shall not exceed 4 working level months per year, as low as reasonably achievable. The certified radon measurement business shall maintain records showing the radiation exposures of all individuals for whom personnel monitoring is required. Such records shall be kept on DH Form 1834, Aug. 90, which is herein incorporated by reference and which is available from the department, or on clear and legible records containing all the information required by that form. Records shall be maintained in working level months showing the results of exposure during radon measurement activities and shall be preserved for 20 years. The discontinuance or curtailment of activities does not relieve the certified business of responsibility for retaining all radiation exposure records.

(9) Maintenance of the following records for 5 years:

(a) Records of all radon tests performed;

(b) Records of instrument calibrations and quality control;

(c) Records of participation in a proficiency program;

(d) Copies of certification for radon measurement specialists and radon measurement technicians employed or used as consultants.

(e) Records of specialist site visits and observations and evaluations of technicians.

(10) If a certified radon measurement business loses its certified radon measurement specialist, the certified radon measurement business shall notify the department in writing within 5 business days. The certified radon measurement business shall obtain another certified radon measurement specialist within 30 days of the loss of the certified radon measurement specialist.

(11) Identification of all branch office locations and the certified specialists and technicians at branch locations who will perform measurements for the certified business. Branch offices shall identify the name and the certification number of the certified business on correspondence and reports to clients and shall accept payments in the name of the certified business. The branch office shall be considered a part of the certified business and make reports and follow procedures approved for the certified business.

(12) A certified radon measurement business shall provide the following reports.

(a) A certified radon measurement business shall submit measurement reports to the department by the 15th of each month. Reports shall include building information, the name of the person performing the measurements and the results of all available radon and radon progeny measurements taken

during the previous month which are not otherwise reported as specified in subpart B of this rule. If no measurements were taken during a month, the report shall indicate none were taken. Data shall be submitted on DH Form 1750, Mar 94, or DH Form 1833, Mar 94, which are herein incorporated by reference and which are available from the department.

(b) The certified radon measurement business shall report measurement results for radon and radon progeny to the client. Radon results shall be reported in picocuries per liter. Radon progeny results shall be reported in working levels. The report provided to the client shall include the name of the certified business, the business certification number, the name and certification number of the individual who performed the measurements, the type of device used, the date and time of the start and end of the measurement, and the following statements: This notice is provided to you by an organization or individual certified by the Florida Department of Health to perform radon or radon progeny measurements or radon mitigation services. Any questions, comments, or complaints regarding the persons performing these measurement or mitigation services may be directed to the Florida Department of Health, Bureau of Facility Programs, Radon and Indoor Air Quality, 4052 Bald Cypress Way, Bin #A08, Tallahassee, Florida 32399-1710 (1-800-543-8279).

(c) In addition, the certified radon measurement specialist or business shall notify the client by telephone and certified mail within 2 business days of any measurement with results equal to or greater than 100 pCi/l or 0.5 WL and advise the client to contact the radon information line at 1-800-543-8279 or at other telephone numbers provided by the department. The results of this measurement shall also be provided to the department by phone and certified mail within the same 2 business day period.

Specific Authority 404.051, 404.056, 404.071 FS. Law Implemented 404.051, 404.056, 404.071 FS. History—New 1-3-89, Amended 10-24-90, 1-18-94, 12-9-96, Formerly 10D-91.1309, Amended 3-16-09.

64E-5.1207 Certification Requirements for Radon Mitigation Businesses.

The following qualifications are required for certification as a radon mitigation business:

(1) Submission of an application on DH Form 1749 Jan. 93, and a nonrefundable application and certification fee from the following schedule:

Application received between July 1, 2010 and June 30, 2011: \$375

Application received between July 1, 2011 and June 30, 2012: \$450

Application received on or after July 1, 2012:

\$525

(2) Identification of all mitigation materials and systems offered, diagnostic tests performed, and other related services offered.

(3) Identification of the certified radon mitigation specialists and certified radon mitigation technicians to be used by the business.

(4) If a certified radon mitigation business loses its certified radon mitigation specialist, the certified radon mitigation business shall notify the department in writing within 5 business days. The certified radon mitigation business shall obtain another certified radon mitigation specialist within 30 days of the loss.

(5) Identification of procedures and instrumentation used to perform diagnostic tests.

(6) Disclosure of all reporting forms and system operating instructions provided to clients.

(7) Disclosure of copies of current publications and advertisements of radon-related services made by the applicant.

(8) Development, disclosure and adherence to a health and safety program to limit employees' exposure to radon progeny during the course of their employment. Such a program shall include measures to keep each employee's exposure, which shall not exceed 4 working level months per year, as low as reasonably achievable. The certified radon mitigation business shall maintain records showing the radiation exposures of all individuals for whom personnel monitoring is required. Such records shall be kept on DH Form 1834 Aug. 90, or on clear and legible records containing all the information required by that form. Records shall be maintained in working level months showing the results of exposure during radon mitigation activities and shall be preserved for 20 years. The discontinuance or curtailment of activities does not relieve the certified business of responsibility for retaining all radiation exposure records.

(9) The certified radon mitigation business shall maintain on staff or retain as a consultant a certified radon mitigation specialist. The certified radon mitigation specialist shall monitor the applicant's mitigation activities, ensure compliance with state and federal regulations and be responsible for evaluating diagnostic tests in a building and designing mitigation systems. The certified radon mitigation specialist shall be present when requested by the department during scheduled visits by the department and shall physically observe and evaluate each certified radon mitigation technician in the performance of his mitigation duties at least once each calendar quarter to insure adequate supervision. A record of this evaluation shall be signed by the

specialist and maintained on file by the business. If the mitigation reports submitted to meet the requirements of subsection 64E-5.1207(18), F.A.C., show that no diagnostics or mitigation installations were performed during an entire calendar quarter by any of the certified radon mitigation technicians working for a certified radon mitigation business, the visit, observations and evaluations by the specialist are not required for that quarter. The quarterly visit, observations and evaluations by the specialist must be resumed within the same quarter in which diagnostic or mitigation activities are resumed. The interval between visits, observations and evaluations by the specialist shall not exceed 1 year.

(10) The certified radon mitigation business shall assure that radon mitigation system installations are performed under the supervision of a certified radon mitigation specialist or certified radon mitigation technician. A certified radon mitigation business may contract with a non-certified business to perform mitigation installation provided that work performed by non-certified persons is under the supervision of a certified radon mitigation specialist or certified radon mitigation technician.

(11) The certified mitigation business shall install radon mitigation systems as specified in Chapter 9B-53, F.A.C., Florida Standard for Mitigation of Radon in Existing Buildings, June 1, 1994.

(12) The certified radon mitigation business shall provide all warranty information on the reduction of the radon level, or the proper functioning of mitigation equipment in writing to clients.

(13) The certified radon mitigation business shall ensure that each building is measured for radon levels before and after mitigation work is performed. Such measurements shall be of sufficient type, duration and consistency to allow for comparison of before and after mitigation radon levels, shall be performed with devices that meet proficiency requirements of the USEPA measurement proficiency program, and shall be performed by a certified measurement business. The post-mitigation measurements shall be started no sooner than 24 hours after the mitigation system is fully operational. The mitigation system shall be operated normally and continuously during the entire measurement period. The results of both the pre-mitigation and the post-mitigation measurements shall be sent to the department as specified in subsection 64E-5.1207(18), F.A.C.

(14) The certified radon mitigation business shall maintain at a minimum the following records for 5 years:

(a) Records of all mitigation work performed, including client name, address, initial and follow-up measurement results, diagnostic test results, a description of each mitigation system and materials installed, cost of each

system, post-mitigation measurement methods and results and all pertinent dates.

(b) Records of mitigation plans developed and signed by a certified radon mitigation specialist.

(c) Records of all instrument calibrations and warranted equipment installed.

(d) Copies of the certification for radon mitigation specialists and radon mitigation technicians employed or used as consultants.

(e) Records of specialist site visits and observations and evaluations of technicians.

(15) The certified radon mitigation specialist or certified radon mitigation technician shall perform a visual inspection and diagnostic tests as appropriate before system installation to determine the appropriate mitigation system to be installed. Observations made during visual inspections shall be documented by the business.

(16) The certified radon mitigation business shall provide the client with written instructions on the operation and maintenance of each component of the mitigation system. Information on adverse effects produced by the operation of a mitigation system, including added energy costs, shall be included.

(17) Identification of all branch office locations and the certified specialists and technicians at branch locations who will perform mitigation services for the certified business. Branch offices shall identify the name of the certified business on correspondence and reports to clients and shall accept payments in the name of the certified business. The branch office shall be considered a part of the certified business and make reports and follow procedures approved for the certified business.

(18) A certified radon mitigation business shall provide the following reports; a certified radon mitigation business shall submit mitigation reports to the department by the 15th day of each month. Reports shall include building information on all radon mitigation work completed during the previous month, the name of the certified radon measurement business and individual performing the pre-mitigation and post-mitigation radon and radon progeny measurements, and the measurement results. If no radon mitigations were performed during a month, the report shall indicate none were performed. Reports shall be submitted on DH Form 1753, Mar 90.

Specific Authority 404.051, 404.056, 404.071 FS. Law Implemented 404.051, 404.056, 404.071 FS. History—New 1-3-89, Amended 10-24-90, 1-18-94, 12-9-96, Formerly 10D-91.1310, Amended 3-16-09.

64E-5.1208 Measurement Requirements and Procedures.

(1) The following buildings are required to be measured for radon or radon progeny.

(a) All public and private school buildings or school sites housing students in kindergarten through grade 12.

(b) All state-owned, state-operated, state-regulated or state-licensed 24-hour care facilities. This shall include but not be limited to the following: hospitals, nursing homes, foster homes, assisted living facilities, mental institutions, nursery facilities providing 24-hour care, detention centers, correctional institutions, and pre-release centers.

(c) All state-licensed day care centers for children or minors.

(2) The radon measurement procedures for use in fulfillment of the requirements of Section 404.056(4), Florida Statutes, Mandatory Radon Measurement Protocols (Brochure DH 150-334), may be obtained from the Department of Health and is incorporated herein by

reference. This measurement protocol will be used to identify structures in which the potential exists for elevated radon concentrations, to specify longer term measurements to establish occupant exposure levels when elevated concentrations are found, and to periodically remeasure facilities.

(3) Measurement reports for dwelling units which have been measured using section 2 of the USEPA Radon and Radon Decay Product Measurements in Homes, Publication No. EPA 402-R-92-003, shall be reported to the department on DH Form 1778, Feb. 96, herein incorporated by reference and available from the department. Measurements reports for non-residential buildings which have been measured using sections 3 and 4 of the Mandatory Radon Measurement Protocols (Brochure DH 150-334), shall be reported to the department on DH Form 1777, Feb. 96, herein incorporated by reference and available from the department.

Specific Authority 404.022, 404.051, 404.056 FS. Law Implemented 404.022, 404.051(1), (4), (7), 404.056(1), (5), (7), (9) FS. History—New 10-8-89, Amended 1-18-94, 12-9-96, Formerly 10D-91.1317.